Remarks

In the office action, the Examiner objects to the drawings for not showing a user interface. This is shown in Fig 6 by the items 607 and 614 marked GUI, representing graphical user interface. Although fig 6 shows a prior art system, page 15 indicates that "The above introduction presented the environment in which implementations of the present invention are intended to be placed", hence the GUI shown in Fig 6 can be used for the embodiments of the invention. Similarly, the Examiner objects to the drawings for not showing a carrier carrying software. Fig 6 shows a workstation 610 and shows memory 612 which are used to store and run software. This must therefore be a carrier carrying software. Again, although fig 6 shows a prior art system, it is shown that it can be used for embodiments of the invention. Hence these claim features are illustrated.

Regarding the provisional double patenting rejection, this will be dealt with once the prior art rejections are overcome.

Regarding the rejection of claims 13 and 14 and 18-21 for lack of written description, the user interface is described in relation to fig 6, as is the carrier carrying software. A person skilled in the art needs no more information to convey these features of the invention.

Regarding the rejection of claims 15-17 relating to communications signals, for non statutory subject matter, these claims have now been cancelled.

Regarding the rejection of all claims under 35 U.S.C. §103 for obviousness over Taghadoss over Boer et al, this is respectfully traversed for the following reasons. Taghadoss concerns a network management system which can identify the current state of logical and physical entities. These entities and relationships between them are represented by a hierarchy of software objects and object relationships. Boer is concerned with the problem that

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"in networks with different types of controls (centralized control and distributed control) different types of control Information are required for determining links, which complicates the coupling of networks with different types of controls." (col 1 line 48 onwards).

The solution Broer proposes is that:
"the network is partitioned into subnetworks between which sublinks are determined, each subnetwork being assigned access points which indicate the status of said subnetwork, such as the transport capacity between its access points, the sublinks in each case extending from a first access point to a second access point, and the sublinks to be determined being reduced in size by repeated partitioning of the subnetworks." (col 2 line 30 onwards)

The significance of the access points is explained as follows:
"the status, in particular the transport capacity on a link to an adjacent network, of each subnetwork being indicated at so-called access points. At these access points, properties of the network are grouped, i.e. network elements and their properties are represented in a functionally combined way at a higher abstraction level." (col 2 line 39 onwards)

This reference is not relevant to claim 1, 9, 11, 18 or 20 as these claims recite generating in respect of a subnetwork, an off network pointer. There is no mention of this in the cited documents. The access point is not a pointer exiting the subnetwork as claimed. As is explained at page 17 of the present application:

"From information about off-network connectivity at the physical or logical layers, the invention enables logical functionality to be extrapolated up to the point where a "logical pipe" extends across the region to another operator's region, enabling a service to be built across to the other region. The point is ultimately reached where services are offered that can In turn offer services.

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In this way, transport to other regions can be provided from not just the edge nodes/Network Elements but from nodes interior to a region/domain.

This is made possible because the logical implications of off-network pointers on client layers/protocols are determined."

There is no suggestion of this feature, nor its advantages in the cited references taken singly or in combination. Hence these claims would not have been obvious.

Regarding claims 5, 10, 12, 19 and 21, these claims all specify "determining those ports that represent valid termination points for trails, links and link connections in the subnetworks". The significance of these claims is explained at page 19 as follows:

"The operators in the partitioned areas can "see" up to and including the demarcation points, such as X, Y, between partitions. When the physical layer is built between Y, say, in the backbone and C in an adjacent partition, and between X in the backbone and F in another partition, it is possible to support connectivity between regions. To achieve this it is necessary to be able to define the demarcation points, ie the CTPs that are members of a particular domain and are edge points. It is undesirable to allow trails to be built to any points within partitions as this leads to a lack of control and hinders interpretation of the intended trail as it would no longer be possible to identify when trails were validly complete. The invention enables trails to be built that start on a TTP or a CTP on the edge of a partition and build over a number of other NEs and then terminate on a TTP or a CTP at another edge. Trails are built from say A through B and C to Y, from F to X and from G to U, for the sake of example. The points A, F and G may go off to geographically distinct areas of a single network. The CTP terminated aspect of the invention enables the capability to build end-to-end trails in parts according to the partitioning needs of the operator. "
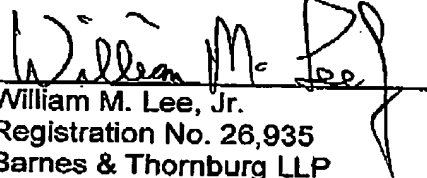
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In contrast, Broers seems not to limit which ports can be used for links between partitions, so there can be no disclosure of determining which ports represent valid termination points for trails in the subnetworks, as claimed. An access point is simply assigned in Broers in each subnetwork, without any step of first determining which ports are valid termination points for such links between different subnetworks, as claimed. There is no suggestion in the cited references taken alone or in combination of this feature, nor of its advantages. Hence these claims would not have been obvious.

The dependent claims are allowable as they depend on allowable main claims. There is no need to discuss whether it is obvious to combine Boer and Taghadoss, but this is not admitted.

All the points raised have been dealt with, all the claims are submitted to be allowable and reconsideration is requested.

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Respectfully submitted,

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